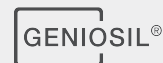


# GENIOSIL<sup>®</sup> GF 98



## Organofunctional Silanes

3-Ureidopropyltrimethoxysilane

### Properties

Besides the application of GENIOSIL<sup>®</sup> GF 98 as an adhesion promoter in formulations and primers, it is also used as a coupling agent for modifying fillers and pigments to enhance dispersibility in organic binders and plastics, and thereby improve mechanical properties (flexural strength, tensile strength, modulus etc.). GENIOSIL<sup>®</sup> GF 98 is an alkoxysilane with an amino-functional group. It's a clear, colorless to light yellowish liquid with a characteristically aromatic odor. The compound reacts with moisture under hydrolysis of the alkoxy groups and forms silanols, which reacts further forming siloxanes. As a bifunctional amine, GENIOSIL<sup>®</sup> GF 98 can also interact with numerous organic polymers and thus function as a molecular bridge between organic and inorganic substrates.

## Technical data

### General Characteristics

| Property             | Condition        | Value                  | Method        |
|----------------------|------------------|------------------------|---------------|
| Boiling point        | 1013 hPa         | > 300 °C               | -             |
| Density              | 25 °C   1013 hPa | 1.15 g/cm <sup>3</sup> | -             |
| Flash point          | -                | 99 °C                  | not specified |
| Ignition temperature | -                | 300 °C                 | DIN 51794     |
| Refractive index     | 25.0 °C          | 1.46                   | -             |

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

## Applications

- Building & Construction Adhesives
- Do It Yourself
- Sealants

## Application details

1. General processing information GENIOSIL® GF 98 is very readily soluble in alcohols, esters and ketones. It is only slightly soluble in n-hexane. It may react slowly with ketones and aldehydes to form imines. With other alcohols excepting methanol, an autocatalytic exchange reaction forms mixed alkoxy silane bonds. In neutral water GENIOSIL® GF 98 reacts under hydrolysis and condensation of the silanol groups. The water has an approximate pH of 9 - 10. 2. GENIOSIL® GF 98 as an Adhesion Promoter in Formulations In silane crosslinking formulations GENIOSIL® GF 98 may be added to the formulation as an adhesion promoter. Processing is effected by means of standard mixing methods. Usually, about 1 - 2 wt % silane is added to the formulation. 3. GENIOSIL® GF 98 as a surface modifier Fillers are treated either with pure GENIOSIL® GF 98 or a solution thereof. It may be necessary to pretreat the substrate with water. In an alternative procedure referred to as "blending", GENIOSIL® GF 98 is added directly to the polymer - either before the organic materials is compounded with the filler or at the same time. However, this is only possible if the polymer is compatible with GENIOSIL® GF 98. Important applications of GENIOSIL® GF 98 is the use as an adhesion promoter in sealants, adhesives and coatings, and as a coupling agent for inorganic particles, pigments or fillers.

## Packaging and storage

### Packaging

Information on available container sizes is obtainable from WACKER subsidiaries.

### Storage

The 'Best use before end' date of each batch is shown on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

## Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

## QR Code GENIOSIL® GF 98



### For technical, quality or product safety questions, please contact:

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The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.